



## Michigan's Food & Agriculture Industry



Aquaculture:  
Part Of Reinventing  
Michigan



### Definitions



**Aquaculture** means the commercial husbandry of aquaculture species on the approved list of aquaculture species, including but not limited to the culturing, producing, growing, using propagating, harvesting, transporting, importing, exporting, or marketing of aquaculture products under an appropriate permit or registration."

## Aquaculture Industry Value



- Worldwide, aquaculture provides more than 50% of the fish we consume. The U.S. imports 85% of its seafood. A national seafood trade deficit over \$10 billion annually.
- Americans consume 4.5 billion lbs. of seafood annually.
- Michigan aquaculture can grow from \$ 5 million annually with 100 jobs to over \$100 million with 1,500 jobs

By 2050



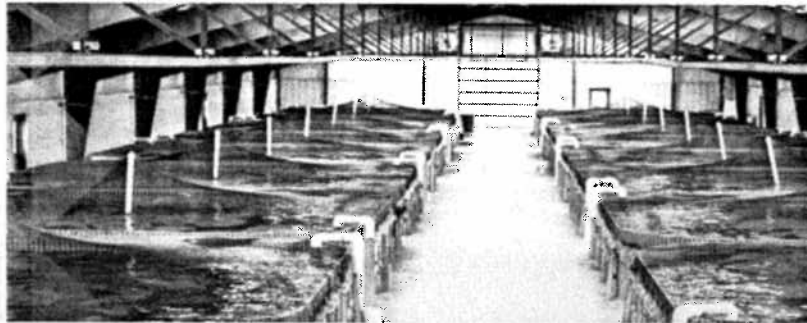
- World's population will reach 9.1 billion – 34% increase
- Food production must increase 70% to meet growing demand of an expanding population.
- 70% of world's population will be urban – 49% today.



## Aquaculture Background



- Michigan aquaculture focuses on raising fish for bait, stocking ponds, fee fishing, and food.
- Worldwide, aquaculture provides 50% of the fish we consume.
- Aquaculture can become a major agricultural contributor to the state and add to the strength of our "locally grown" markets.



## What Has Been Done In Michigan



- Aquaculture in Michigan Roadmap through Regulation
  - Focused on: Regulatory decisions, Non-regulatory decisions, Market/Business decisions



10. Aquaculture in Michigan Roadmap through Regulation

### Aquaculture in Michigan Roadmap through Regulation



Taking Aquaculture in Michigan (AIM) to the future: a "Roadmap" for the aquaculture sector to understand the underlying regulatory framework for operation expansion and new form enterprise development.

Prepared for the Aquaculture Industry Committee  
(Submitted to the Michigan Department of Agriculture and Rural Development)  
By: Originz, LLC  
Project Principals: Joe Colyn & Gary Boersen  
Summer 2012

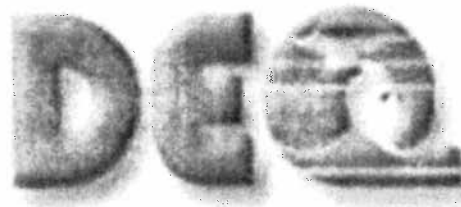
*in wise and frugal Government, which shall restrain  
men from injuring one another, shall leave them  
otherwise free to regulate their own pursuits of industry  
and improvement, and shall not take from the mouth of  
Labor the bread it has earned. This is the sum of good  
government.*

Thomas Jefferson, 1st Inaugural Address, 1801

## What Has Been Done In Michigan



- ▶ AIM efforts developed a new memorandum between MDARD, MDEQ, and MDNR.
- ▶ Formed a Quality of Life (QOL) Aquaculture Working Group to streamline regulatory process between the departments.



## What has Been Done In Michigan Cont'd...

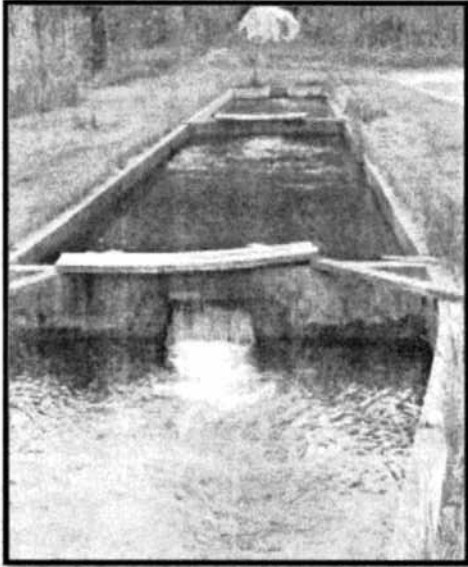


▶ QOL group met monthly from January to June 2013 with Originz, and met bimonthly with the AIM Workgroup.

- Currently updating MDARD's aquaculture web page.
- QOL aquaculture team has worked with the following operations to get them permitted.
  - Manistee Co. recirculating system operational
  - Jackson Co. open water system expansion-permitting process.
  - Macomb Co. Aquaponic system-permitting process.



## Continued Efforts



Michigan Sea Grant, in partnership with the industry, is creating a strategic plan for the industry with a goal of growing the industry to be a \$1B thriving and sustainable contributor to the economy and society by 2025.

Continued commitment by the QOL directors to streamline process.

Continue working with MEDC of the benefits of a growing aquaculture.

## Michigan Aquaculture Advantages



The proximity to large market areas.

Supply of Water

Modern technologies: Water reuse, Solids capture, and Aquaponics will emphasize this as a sustainable segment of the agriculture industry.

Resources to enhance & expand processing capacity in Michigan.





Michigan Department of  
**AGRICULTURE**  
& Rural Development

## Questions

